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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/764,742	01/26/2004	Roger P. Wolf	03-006	8637
29883	7590	02/17/2006	EXAMINER	
BARTONY & HARE LAW & FINANCE BUILDING, SUITE 1801 429 FOURTH AVENUE PITTSBURGH, PA 15219			FERNSTROM, KURT	
			ART UNIT	PAPER NUMBER
			3711	

DATE MAILED: 02/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/764,742	<b>Applicant(s)</b> WOLF ET AL.	
	<b>Examiner</b> Kurt Fernstrom	<b>Art Unit</b> 3714	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-53 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-53 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>1/26/04</u> . | 6) <input type="checkbox"/> Other: ____.  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 12, 20, 22-25 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Foresman in view of Day. Foresman discloses in Figure 1 and in the specification a device and method for teaching mathematics comprising a work surface 151 and a plurality of movable elements 101 and 102, where each element comprises a visible mathematical symbol and can be selectively placed on the work surface. Foresman fails to disclose that the pieces are slidable upon the work surface. However, this feature is well known in the form of magnetic display boards. Day discloses one example of magnetic pieces which may be placed on a board. It would have been obvious to one of ordinary skill in the relevant art to modify the device of Foresman by providing a magnetic board and pieces for the purpose of providing a display which is more easily manipulated. With respect to claims 2 and 23, Foresman discloses a frame which defines the boundaries of the work surface. With respect to claims 4 and 25, it is not clear how the boundaries of the claim are defined. Foresman does disclose in Figure 2A that certain of the symbols are enlarged. With respect to claims 12 and 33, the elements are shaped such that the symbol can be

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identified by touch. With respect to claim 20, each of the recited symbols is disclosed in Figure 1 of Foresman.

Claims 5-11, 13-19 and 26-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Foresman in view of Day, and further in view of Olivera. Foresman as viewed with Day discloses all of the limitations of the claims with the exception of the features pertaining to the placement and storage of the elements. Olivera discloses in Figure 1 and in the specification a display device and method comprising elements each having a symbol, where the elements are stored in stacked fashion in compartments around the perimeter of the device when not in use, each compartment containing a plurality of elements each having a specific symbol. It would have been obvious to one of ordinary skill in the relevant art to modify the device and method of Foresman as viewed with Day by storing like elements in stacks in compartments around the perimeter of the display area for the purpose of making it easier for a user to selectively obtain and use a desired symbol in the display.

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Foresman in view of Day, and further in view of Jackson. Foresman as viewed with Day discloses all of the limitations of the claim with the exception of the question mark and remainder symbol (Foresman discloses a decimal point 203C in Figures 2A and 2B). Jackson discloses in Figure 1 and in the specification a display device and method for teaching math comprising elements each having a symbol, including a question mark 11 and a remainder symbol 4. It would have been obvious to one of ordinary skill in the relevant art to modify the device and method of Foresman as viewed with Day by

providing a question mark and a remainder symbol for the purpose of expanding the types of mathematical expressions that may be displayed.

Claim 42 is rejected under 35 U.S.C. 103(a) as being unpatentable over Foresman in view of Day and Olivera, and further in view of Jackson. Foresman as viewed with Day and Olivera discloses all of the limitations of the claim with the exception of the question mark and remainder symbol (Foresman discloses a decimal point 203C in Figures 2A and 2B). Jackson discloses in Figure 1 and in the specification a display device and method for teaching math comprising elements each having a symbol, including a question mark 11 and a remainder symbol 4. It would have been obvious to one of ordinary skill in the relevant art to modify the device and method of Foresman as viewed with Day and Olivera by providing a question mark and a remainder symbol for the purpose of expanding the types of mathematical expressions that may be displayed.

Claims 43-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Foresman in view of Day, and further in view of Foster. Foresman as viewed with Day discloses all of the limitations of the claims with the exception of the method of having a visually impaired student use the display. While the symbols of Foresman are usable by a visually impaired student, this method is not disclosed or suggested. However, Foster discloses in column 8, lines 39-50 a display board with pieces which have Braille markings on them. This feature is clearly intended for use by visually

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impaired students, thus suggesting the claimed method. It would have been obvious to one of ordinary skill in the relevant art to modify the device and method of Foresman as viewed with Day by providing markings for visually impaired users for the purpose of allowing such users to learn using the device.

Claims 48-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Foresman in view of Day and Foster, and further in view of Olivera. Foresman as viewed with Day and Foster discloses all of the limitations of the claims with the exception of the features pertaining to the placement and storage of the elements. Olivera discloses in Figure 1 and in the specification a display device and method comprising elements each having a symbol, where the elements are stored in stacked fashion in compartments around the perimeter of the device when not in use, each compartment containing a plurality of elements each having a specific symbol. It would have been obvious to one of ordinary skill in the relevant art to modify the device and method of Foresman as viewed with Day and Foster by storing like elements in stacks in compartments around the perimeter of the display area for the purpose of making it easier for a user to selectively obtain and use a desired symbol in the display.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Smith, Leslie, Bush, MacKay, Fox and Cress disclose various display devices and methods for teaching.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kurt Fernstrom whose telephone number is (571) 272-4422. The examiner can normally be reached on M, T, Th 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Kim can be reached on 571 272-4463. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



KF  
February 7, 2006

**KURT FERNSTROM**  
**PRIMARY EXAMINER**